

Universal Access Fact Sheet

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Version 1.0

UNIVERSAL ACCESS - NON MANDATORY RECOMMENDATIONS

INTRODUCTION

The following information provides a series of design concepts to make a home more usable for people with a range of disabilities including physical and sensory. The various features can be incorporated into a new build or when additions or alterations are made to a dwelling. Some features can be incorporated to allow for the future installation of systems like grab rails or hoists.

Each of the following concepts may aid a person with one or more impairments, be it mobility, vision, hearing or resulting from a brain injury.

The 'Universal Access' suggestions are not mandatory requirements, and are provided as information only. There is no requirement under the Tasmanian Building Act or Building Regulations to implement these recommendations, although there is a growing interest in including these features in new dwellings.

Refer also to drawing UA01 - Universal Access Plan for simple measures which can be included at a relatively low cost.

I. ENTRY AND PATHS

Access path

The access pathway to the main entry of the residence should provide a smooth, stable surface with no steps and limited changes of direction and changes of surface.

- Provide a pathway width that allows ease of mobility aid travel, and allows an able bodied person to accompany a person with a mobility aid.
- Where a turn is of greater than 30°, provide infill to inside of the corner.
- Provide solid surfaces adjacent to a pathway.
- Avoid plants that overgrow the pathway.
- If including a ramp or inclined walkway, provide a handrail on both sides of the ramp to assist people with different dominant sides.

Access to the building

The access point to the residence should be a relatively level, evenly flat surface with roof protection. The door should have adequate circulation at the latch side of the door, and provide a system of entry that is easy to use and smooth to traverse.

- Landing to have a gradient of no more than 1:40 slope for the first 1200mm.
- A clear circulation space of around 500mm from the latch side of the door.
- Provide a roof over the landing area.
- Provide keyless locking system at the entry door, with lever action furniture and/or D shaped handles.
- Provide downward facing lighting, with low glare output that provides lighting directly to the paving surface.

- Limit changes in height of floor surface to no more than 5mm by setting the door frame into the slab or timber floor frame.

2. FRAMING AND CONSTRUCTION

Provide framing or other inclusions to allow immediate or future installation of fixtures within the building.

- Install timber blocking in wall frames to allow the installation of hand/grab rails in areas such as bathrooms and toilets. For greater flexibility, fully sheet the internal walls with 12mm ply (which can be incorporated in the structural bracing of the building, and notched into the studs).
- Design the roof/ceiling frame to allow installation of lifting hoists in the bedroom, in the bathroom (over a bath) or in a living room as required. For truss roof design, this additional load requirement needs to be included by the designer for the truss supply company.

3. CIRCULATION AND DOORS

Accessing specific rooms and transiting the building to access various rooms requires that doorways, passages, and room sizes can accommodate persons with or without mobility aids.

- Avoid narrow corridors, consider width of 1200mm to 1500mm to allow for circulation at door entry points in the passage.
- Avoid tight 90° turns in corridors.
- Provide direct straight line entry into bedrooms which are specifically used by mobility impaired persons, or those likely to require assistance for emergency services.
- Allow for adequate movement/circulation space between bed and minimum of one side and end wall.
- Provide standard door widths of at least 820mm throughout, instead of using narrow width doors for wet areas.
- Provide luminance contrast between doors and frames / architraves for the visually impaired.
- Position sliding door handles at an appropriate distance from the door jamb or door stop.
- Position door handles at an appropriate height for both able bodied and mobility aid users.

4. BATHROOM / TOILET AREAS

Bathrooms and toilets have specific requirements to support different needs.

- Allow internal bathroom circulation for a person with a mobility aid to enter and turn around.
- Install non-slip flooring with an R10 rating for general areas of the bathroom, and an R12 rating in the walk-in shower areas.
- Provide lever or flick mixer taps throughout.
- Taps or flick-mixers located in walk-in shower located on side wall approximately 900mm from end wall.
- Provide a minimum width of 1200mm for a walk-in shower where assistant showering is required (larger if multiple assistants required).
- Provide a level inclined surface in the shower area sloping evenly to a strip shower waste at the wall.
- Provide a 'second' floor waste in the general floor area of the bathroom, in addition to the floor waste in the shower area.
- Provide a rated vertical grab rail within the shower, with flexible hose connection located approximately 700mm above floor level.
- If a fixed seat is to be provided in the shower, the top of the seat should be 460-500mm above the floor level.
- Position toilets adjacent to a wall where possible, at an adequate distance to allow for grab rail installation.

- Provide an 'over-height' toilet pan (450/460mm seat height) with a grab rail on the side of the pan at 800mm above floor level. If designing for a specific occupant, provide the side grab rail on the side of the stronger arm/hand.
- Maintain a clear space in front of toilet for circulation.
- Consider the use of full strength grab rails to act as towel rails in bathroom.
- Grab rails to be textured (non-slip) - for wet/soapy hands.
- Provide robust fittings to wet areas - taps, handrails, toilet seats, towel rails, toilet roll holders, shelving etc.
- Run the plumbing waste pipes for basins in the wall framing where appropriate to allow access below the basin top while using a wheelchair.

5. LIGHTING AND ELECTRICAL

The type and location of lighting both externally and internally can affect those with vision impairments, brain injuries and those who suffer epilepsy. The primary focus for good lighting design is to limit glare from wall mounted fittings and to ensure that the surface of where the person is transiting has sufficient illumination. Certain light frequencies can cause migraine headaches and seizures in people affected by brain injuries and epilepsy; the design of lighting systems in these instances must be specifically related to the occupant.

- Pendant lighting to be directed downwards to the walking surface, limiting side glare.
- Wall fittings to be shaded at the illumination point to limit side glare.
- Provide entry path lighting that illuminates directly down/across the path with no upward illumination.
- Up lighting on pathways to be avoided as this will limit vision of the walking surface.
- Provide skirting height wall mounted sensor lighting in passageways between bathrooms and bedrooms.
- Provide sensor lighting at entry points to the building.
- Provide sensor lighting in bathrooms.
- Consider installing strobe lighting as additional emergency fire detection for occupants with a hearing impairment.
- Position light switches and power outlets at an appropriate height for both able-bodied and mobility aid users.

6. GENERAL CONSIDERATIONS

The location and design of these specific parts of a building may provide benefits:

- Provide a toilet at entry level, close to the entry door.
- Limit structural elements at eye level within windows and glass balustrades for persons with a mobility aid.
- Provide zones in the kitchen to allow a person with a mobility aid to access bench space at appropriate height and leg room.
- Provide lever or flick mixer taps throughout.
- Limit changes in adjacent floor surface finishes to a maximum of 5mm, and install trims between different floor finishes to keep transitions as level as possible.
- Provide slip resistance floor finishes throughout (a rating of R10 is ideal).
- Avoid highly polished, smooth or reflective floor finishes.
- Consider carpet and underlay thickness for mobility aid users.
- Provide ample natural light to assist persons with an acquired brain injury.

For further information you may wish to refer to the Livable Housing Guidelines for more information.
<http://www.livablehousingaustralia.org.au>